



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD2ARG-P31-840-A-POE AMBIENT ONLY\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TESTLAB] GEN from Intertek  
 [ISSUEDATE] 19-AUG-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836  
 [LUMINAIRE] 2X2' LED TROFFER  
 [MORE] FROSTED ACRYLIC DIFFUSER  
 [LUMCAT] AMD2ARG-P31-840-A-PoE AMBIENT ONLY  
 [LAMPCAT] HLM 80 CRI, 4000K CCT  
 [ \_SEARCH\_SOURCE] LED  
 [ \_SEARCH\_APPLICATION] INDOOR, DIRECT, OFFICE, EDUCATION  
 [ \_SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3124
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	23
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3061	3059	3173
55	2541	2738	2838
65	1981	2278	1878
75	1472	1467	1090
85	946	722	583

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : AMD2ARG-P31-840-A-POE AMBIENT ONLY\_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1361.634	1361.634	1361.634	1361.634	1361.634
2.5	1360.792	1358.266	1357.101	1360.080	1361.699
5.0	1357.036	1353.798	1351.337	1352.114	1353.668
7.5	1348.811	1344.084	1340.717	1339.810	1338.061
10.0	1335.924	1330.485	1324.138	1321.742	1319.734
12.5	1318.439	1312.740	1304.386	1299.076	1294.867
15.0	1295.514	1289.427	1279.130	1271.683	1266.437
17.5	1268.121	1260.479	1249.082	1240.663	1234.640
20.0	1235.677	1227.517	1214.565	1205.434	1198.505
22.5	1198.764	1189.633	1176.292	1167.355	1160.815
25.0	1158.677	1147.992	1133.421	1125.650	1119.822
27.5	1115.871	1103.826	1089.191	1083.556	1079.282
30.0	1071.252	1058.689	1044.636	1040.427	1037.707
32.5	1023.783	1011.091	998.268	996.908	995.095
35.0	972.559	960.772	949.893	952.548	952.289
37.5	917.902	907.540	899.380	904.885	906.763
40.0	861.302	852.171	846.990	856.250	860.395
42.5	801.464	794.664	793.369	807.033	814.610
45.0	739.748	735.280	739.165	757.557	766.623
47.5	678.227	677.773	685.221	708.534	718.831
50.0	616.770	620.850	633.931	660.547	667.217
52.5	556.738	564.962	584.649	610.359	613.920
55.0	498.130	510.629	536.662	555.637	556.349
57.5	441.595	457.332	488.740	495.993	480.127
60.0	386.744	405.589	438.422	422.167	407.856
62.5	334.353	356.048	386.873	357.343	337.203
65.0	286.043	310.198	329.043	293.749	271.278
67.5	241.294	266.744	271.666	233.134	214.030
70.0	200.819	226.529	220.441	181.780	165.914
72.5	163.583	187.414	172.260	138.456	126.734
75.0	130.231	148.494	129.778	104.198	96.427
77.5	99.794	111.451	93.707	77.193	72.531
80.0	72.854	78.942	64.760	55.369	52.779
82.5	49.023	49.994	40.993	36.136	33.999
85.0	28.170	26.033	21.500	18.910	17.356
87.5	9.908	8.224	7.512	7.642	7.577
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AMD2ARG-P31-840-A-POE AMBIENT ONLY\_.IES**

**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	0.000	0.000	0.000	0.000	0.000
<b>137.5</b>	0.000	0.000	0.000	0.000	0.000
<b>140.0</b>	0.000	0.000	0.000	0.000	0.000
<b>142.5</b>	0.000	0.000	0.000	0.000	0.000
<b>145.0</b>	0.000	0.000	0.000	0.000	0.000
<b>147.5</b>	0.000	0.000	0.000	0.000	0.000
<b>150.0</b>	0.000	0.000	0.065	0.000	0.065
<b>152.5</b>	0.000	0.000	0.065	0.000	0.000
<b>155.0</b>	0.000	0.000	0.000	0.000	0.000
<b>157.5</b>	0.130	0.065	0.000	0.259	0.065
<b>160.0</b>	0.065	0.000	0.194	0.130	0.065
<b>162.5</b>	0.259	0.065	0.065	0.065	0.194
<b>165.0</b>	0.065	0.065	0.194	0.130	0.259
<b>167.5</b>	0.259	0.065	0.130	0.130	0.065
<b>170.0</b>	0.065	0.065	0.194	0.130	0.130
<b>172.5</b>	0.000	0.065	0.259	0.324	0.000
<b>175.0</b>	0.194	0.000	0.130	0.194	0.259
<b>177.5</b>	0.194	0.130	0.194	0.194	0.065
<b>180.0</b>	0.194	0.194	0.194	0.194	0.194

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AMD2ARG-P31-840-A-POE AMBIENT ONLY\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	488.66	N.A.	15.60
0-30	1011.89	N.A.	32.40
0-40	1609.14	N.A.	51.50
0-60	2659.12	N.A.	85.10
0-80	3095.46	N.A.	99.10
0-90	3124.07	N.A.	100.00
10-90	2995.77	N.A.	95.90
20-40	1120.47	N.A.	35.90
20-50	1696.38	N.A.	54.30
40-70	1351.66	N.A.	43.30
60-80	436.33	N.A.	14.00
70-80	134.65	N.A.	4.30
80-90	28.61	N.A.	0.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.07	N.A.	0.00
110-180	0.07	N.A.	0.00
0-180	3124.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	128.30
10-20	360.36
20-30	523.22
30-40	597.25
40-50	575.90
50-60	474.08
60-70	301.68
70-80	134.65
80-90	28.61
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.02
160-170	0.03
170-180	0.01

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AMD2ARG-P31-840-A-POE AMBIENT ONLY\_.IES**

**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	137	137	137	137	134	134	134	134	128	128	128	122	122	122	117	117	117	115
1	126	122	117	113	123	119	115	111	114	111	108	110	107	105	106	103	101	99
2	116	107	100	94	113	105	99	93	101	96	91	97	93	89	94	90	87	84
3	106	95	86	80	104	93	85	79	90	83	77	87	81	76	84	79	75	72
4	98	85	76	68	95	83	75	68	81	73	67	78	71	66	76	70	65	63
5	90	76	67	59	88	75	66	59	73	65	58	71	63	58	68	62	57	55
6	84	69	59	52	82	68	59	52	66	58	52	64	57	51	62	56	51	48
7	78	63	53	47	76	62	53	46	60	52	46	59	51	46	57	50	45	43
8	73	58	48	42	71	57	48	42	55	47	41	54	47	41	53	46	41	39
9	68	53	44	38	66	52	44	38	51	43	38	50	43	37	49	42	37	35
10	64	49	40	34	62	49	40	34	47	40	34	46	39	34	45	39	34	32

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AMD2ARG-P31-840-A-POE AMBIENT ONLY\_.IES**

**UGR TABLE - CORRECTED**

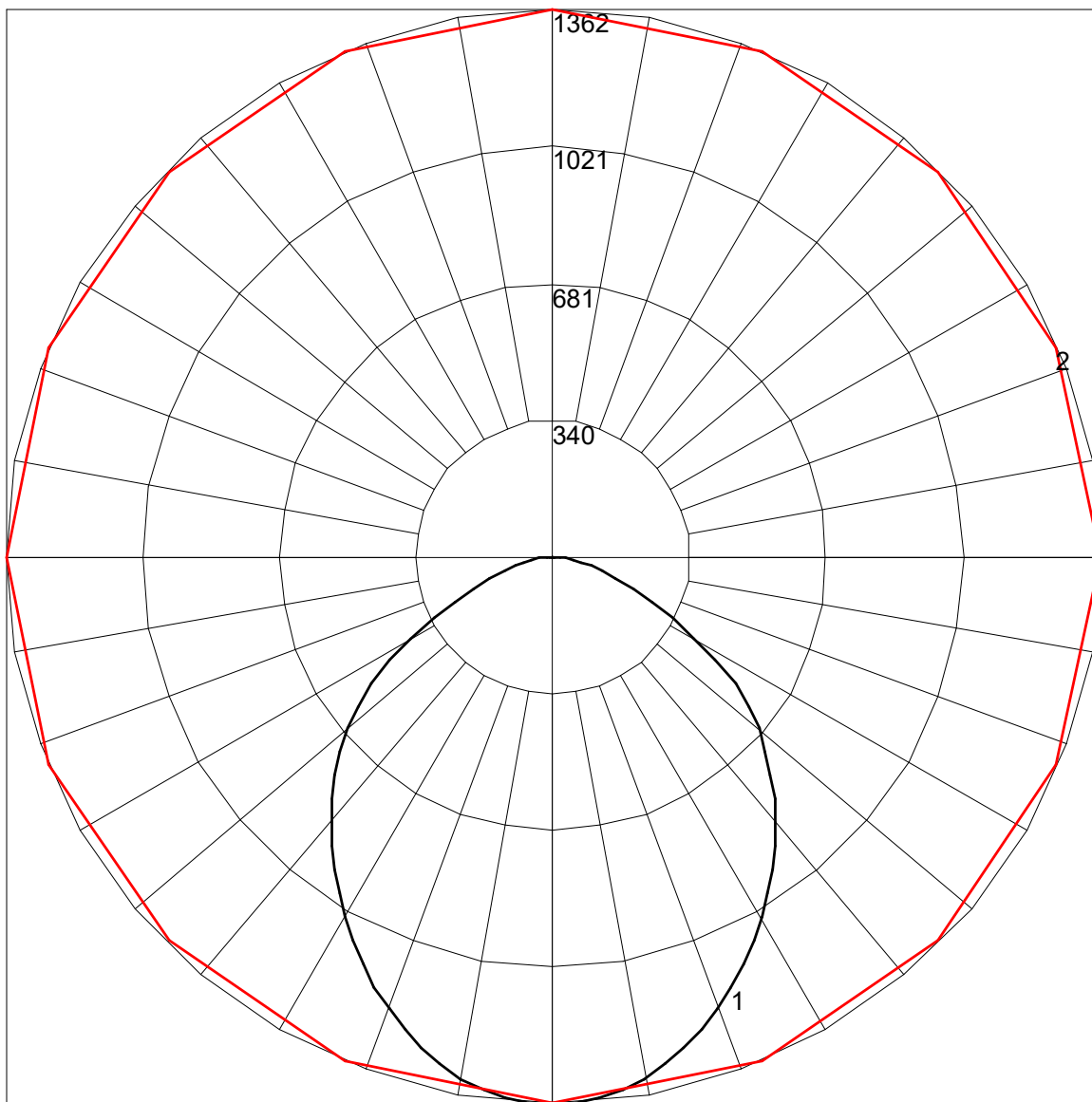
Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	14.5	16.1	14.9	16.4	16.7	15.1	16.6	15.4	16.9	17.2
	3H	15.9	17.3	16.2	17.6	17.9	15.9	17.3	16.3	17.6	18.0
	4H	16.3	17.6	16.7	18.0	18.3	16.1	17.4	16.5	17.8	18.2
	6H	16.6	17.8	17.0	18.2	18.6	16.3	17.5	16.7	17.8	18.2
	8H	16.7	17.8	17.1	18.2	18.6	16.3	17.4	16.7	17.8	18.2
	12H	16.7	17.8	17.1	18.2	18.6	16.3	17.4	16.7	17.8	18.2
4H	2H	15.1	16.4	15.5	16.8	17.2	15.6	16.9	16.0	17.2	17.6
	3H	16.7	17.7	17.1	18.1	18.6	16.6	17.7	17.0	18.1	18.5
	4H	17.2	18.2	17.7	18.6	19.1	16.9	17.9	17.3	18.3	18.7
	6H	17.6	18.5	18.1	18.9	19.4	17.1	17.9	17.5	18.4	18.8
	8H	17.7	18.5	18.2	19.0	19.4	17.1	17.9	17.6	18.4	18.8
	12H	17.8	18.5	18.3	19.0	19.4	17.1	17.9	17.6	18.3	18.8
8H	4H	17.4	18.2	17.8	18.6	19.1	17.1	17.9	17.5	18.3	18.8
	6H	17.8	18.5	18.3	19.0	19.5	17.3	18.0	17.8	18.5	18.9
	8H	18.0	18.6	18.5	19.1	19.6	17.4	18.0	17.9	18.5	19.0
	12H	18.1	18.6	18.6	19.1	19.7	17.4	18.0	18.0	18.5	19.0
12H	4H	17.4	18.1	17.9	18.6	19.0	17.1	17.8	17.6	18.3	18.7
	6H	17.9	18.4	18.4	18.9	19.5	17.4	17.9	17.9	18.4	18.9
	8H	18.0	18.6	18.5	19.0	19.6	17.5	18.0	18.0	18.5	19.0

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 1361.699 Located At Horizontal Angle = 90, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)